UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,290	09/29/2003	Gregory A. Demopulos	PH.1.0006.US2	3124

31629 7590 09/11/2006

OMEROS MEDICAL SYSTEMS, INC.
1420 FIFTH AVENUE
SUITE 2675
SEATTLE, WA 98101

EXAMINER	
KWON, BRIAN YONG S	

ART UNIT	PAPER NUMBER
1614	

DATE MAILED: 09/11/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

[redacted]

Office Action Summary	Application No.	Applicant(s)	
	10/674,290	DEMOPULOS ET AL.	
	Examiner	Art Unit	
	Brian S. Kwon	1614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 June 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *40-64* is/are pending in the application.

4a) Of the above claim(s) *48-50 and 59-61* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *40-47,51-58 and 62-64* is/are rejected.

7)☒ Claim(s) *40 and 51* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 September 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 2/1/04, 06/10/05, 9/27/04.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

[redacted]

DETAILED ACTION

Applicants Response to Restriction Requirement Acknowledged

1. Applicant's election, without traverse, with the Group I (drawn to a pharmaceutical composition along with calphostin C from the class of protein kinase C (PKC) inhibitors and nifedipine from the class of calcium channel antagonists as the elected species is acknowledged.

In response to further restriction on Group I, applicant has elected subgroup I(b), drawn to solutions comprising restenosis inhibitors in combination with spasm inhibitory, with traverse with respect only to the existence of linking claims according to MPEP Section 818.03(d).

2. Upon further consideration, the examiner determines that the search for the I(a) should reveal all art relevant to compounds of that structure, so it would not present an undue burden to search, for example, subgroups I(a) and I(b) together. Therefore the examiner's restriction requirement between subgroup I(a) and I(b), I(c) or I(d) is withdrawn and I(a) will be rejoined with any of subgroup I(b), I(c) or I(d).

3. Claims 40-47, 51-58 and 62-64 read on the elected election. Accordingly, claims 40-47, 51-58 and 62-64 will examined to the extent that they read on the elected invention, namely a solution, for (preemptively) inhibiting restenosis or spasm, comprising restenosis inhibitory agent such as protein kinase C inhibitor (i.e., calphostic C) and spasm inhibitory agent such as calcium channel antagonist (i.e., nifedipine). Claims 48-50 and 59-61 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Objections

4. Claims 40 is objected to because of the following informalities: "pain/inflammation and/or spasm" is improper as containing "/" or "and/or". "pain/inflammation and/or spasm" should be corrected as "pain and inflammation or spasm".

5. Claims 40 and 51 are objected. It appears in view of the instant claims that the language "the agents being selected to act on a plurality of differing molecular targets...the concentration of each agent within the solution being..." or "the agents being selected to act on a plurality of differing molecular target, the concentration of each agent within the solution being..." further describes or limits the characteristic of the claimed composition. However, applicant's recitation of the language without 'wherein' clauses renders the claimed invention extremely confused. Applicant is requested to properly amend the claims to avoid confusion in interpreting the instant invention. For example, it is recommend to amend the claim 40 as following: "A solution...; wherein the agents are selected to act on a plurality...; wherein the solution comprising at least one restenosis inhibitory ...(b) inhibitors of cell adhesion molecules selected from the group consisting of (i) selectin and (ii) integrin inhibitors...; wherein the concentration of each agent within the solution being....".

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 40-47, 51-58 and 62-64are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for "reduction of restenosis", "reduction of spasm", the

specific restenosis inhibitory agent such as "hirudin, hirulog, clopidogrel, ticlopidine, ridogrel, CY 1748, c7E3, MK-383, RO 4483, integrin, calphostin C, G-6203, GF 109203X, bisindoylmaleiminde I, lavendustin A, tyrphostin AG1296, tyrphostin AG1295 and staurosporine" and "the specific spasm inhibitory agents such as "nisoldipine, nifedipine, nimodipine, lacidipine, isradipine, amlodipine, BQ 123, FR 139317, BQ 610, nitroglycerin, sodium nitroprusside, SIN-1, SNAP, FK 409, FR 144420, cromakalim, nicorandil, minoxidil, P 1075, KRN 2391, pinacidil, amitriptyline, imipramine, trazodone, desiprmaine, ketanserin, does not reasonably provide enablement for "inhibition of restenosis", "inhibiting spasm", "direct thrombin inhibitor and receptor antagonist, purinoceptor receptor antagonists, thromboxane inhibitors and receptor antagonists...", "spasm inhibitor agents" or "serotonin2 receptor subtype antagonists, nitric oxide donors, ATP-sensitive potassium channel openers...". The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims.

The factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. 112, first paragraph, have been described in In re Wands, 8 USPQ2d 1400 (Fed. Cir. 1988). Among these factors are: (1) the nature of the invention; (2) the state of the prior art; (3) the relative skill of those in the art; (4) the predictability or unpredictability of the art; (5) the breadth of the claims; (6) the amount of direction or guidance presented; (7) the presence or absence of working examples; and (8) the quantity of experimentation necessary. When the above factors are weighed, it is the examiner's position that one skilled in the art could not practice the invention without undue experimentation.

With respect to the scope of enablement for "preemptive inhibition of restenosis" or "preemptively inhibiting spasm",

The instant claims are drawn to a composition comprising combination of restenosis inhibitory agent such as calphostin C and spasm inhibitory agent such as nifedipine. The American Heritage Dictionary (Second College Edition, 1982) defines the term "inhibit" as "to restrain or hold back; prevent; to prohibit; forbid etc...". The interpretation of the instant claims allows for the prevention, cure, eradication or total elimination of restenosis or spasm by the administration of said compounds.

It is generally known that restenosis is difficult to treat with medications and there are no approved drugs for the prevention of restenosis after angioplasty yet ("The Cardiac Disease Epidemic", Doug Orr, www.medicalimagingmag.com, 2003; "Drug-Eluting Intra-Coronary Stents: Have We Got the Magic Bullet?", Journal of Postgraduate Medicine, 7/1/2003, Dhindsa, S.); and that there is no known cure for spasm yet ("Dystonia", www.dystonia-foundation.org, 2004; "Stiff Person Syndrome", www.answers.com, 2006). Therefore, it is not understood how one skilled in the art can reasonably establish the basis and the type of subject to which the instant compositions can be administered in order to have the "inhibition", prevention, completely cure or eradication effect.

The relative skill of those in the art of pharmaceuticals and the unpredictability of the pharmacy art is high. The specification does not provide any competent evidence or disclosed tests that are highly predictive for the preventive utility of the instant compounds.

There is no evidence of record which would enable the skilled artisan in the identification of the people who have the potential of becoming afflicted with the disease or

disorder claimed herein. Furthermore, there is no demonstrated correlation that the tests and results apply to the claimed prophylactic utility embraced by the instant claims.

Since the efficacy of said composition in inhibiting or preventing restenosis or spasm mentioned above cannot be predicted from a priori but must be determined from the case to case by painstaking experimental study and when the above factors are weighed together, one of ordinary skill in the art would be burdened with undue "painstaking experimentation study" to use the invention commensurate in scope with the claims.

With respect to scope of enablement of "spasm inhibitory agent", "restenosis inhibitory agent selected from the group consisting of: (a) antiplatelet agents...", "spasm inhibitor agents" or "spasm inhibitor agent is selected from the group consisting of: serotonin2 receptor subtype antagonists...". ,

The relative skill of those in the art of pharmaceuticals and the unpredictability of the pharmaceutical art is very high. In fact, the courts have made a distinction between mechanical elements function the same in different circumstances, yielding predictable results, chemical and biological compounds often react unpredictably under different circumstances. Nationwide Chem. Corp. v. Wright, 458 F. supp. 828, 839, 192 USPQ 95, 105(M.D. Fla. 1976); Aff'd 584 F.2d 714, 200 USPQ 257 (5th Cir. 1978); In re fischer, 427 F.2d 833, 839, 166 USPQ 10, 24(CCPA 1970). Thus, the physiological activity of a chemical or biological compound is considered to be an unpredictable art. For example, in Ex Parte Sudilovsky, the Court held that Appellant's invention directed to a method for preventing or treating a disease known as tardive dyskinesia using an angiotensin converting enzyme inhibitor involved unpredictable art because

[redacted]

it concerned the pharmaceutical activity of the compound. 21 USPQ2d 1702, 1704-5(BDAI 1991); In re Fisher, 427 F.2d 1557, 1562, 29 USPQ, 22 (holding that the physiological activity of compositions of adrenocorticotropic hormones was unpredictable art; In re Wright, 9999 F.2d 1577, 1562, 29 USPQ d, 1570, 1513-14 (Fed. Cir. 1993) (holding that the physiological activity of RNA viruses was unpredictable art); Ex Parte Hitzeman, 9 USPQ2d 1821, 1823 (BDAI 1987); Ex Parte Singh, 17 USPQ2d 1714, 1715, 1716 (BPAI 1990). Likewise, the physiological or pharmaceutical activity of inhibiting restenosis or spasm prior to filling of the instant invention was an unpredictable art.

The claims are very broad due to the vast number of possible compounds of that are described as being "spasm inhibitory agent", "direct thrombin inhibitors and receptor antagonists, purinoceptor receptor antagonists, thromboxane inhibitors and receptor antagonists, platelet membrane glycoprotine receptor antagonists, inhibitors of cell adhesion molecules, selectin inhibitors, integrin inhibitors, anti-chemotactic agents, interleukin receptor antagonists, protein kinase C inhibitors and protein tyrosine kinase inhibitors, modulators of intraceullar protein tyrosine phosphatase, inhibitiors of src homology2 domains" or "serotonin2 receptor subtype antagonists, tachykinin receptor antagonist, nitric oxide donors, ATP-sensitive potassium channel openers, calcium channel antagonists and endothelin receptor antagonists". The instant claims cover plethora of compounds having the claimed desired characteristic that are known to exist and those that may be discovered in the future, for which there is no enablement provided.

Although the specification discloses "hirudin, hirulog, clopidogrel, ticlopidine, ridogrel, CY 1748, c7E3, MK-383, RO 4483, integrin, calphostin C, G-6203, GF 109203X,

bisindoylmaleiminde I, lavendustin A, tyrphostin AG1296, tyrphostin AG1295 and staurosporine" as the suitable examples of direct thrombin inhibitors and receptor antagonists, purinoceptor receptor antagonists, thromboxane inhibitors and receptor antagonists, platelet membrane glycoprotine receptor antagonists, inhibitors of cell adhesion molecules, selectin inhibitors, integrin inhibitors, anti-chemotactic agents, interleukin receptor antagonists, protein kinase C inhibitors and protein tyrosine kinase inhibitors, modulators of intraceullar protein tyrosine phosphatase, inhibitiors of src homology2 domains" and "nisoldipine, nifedipine, nimodipine, lacidipine, isradipine, amlodipine, BQ 123, FR 139317, BQ 610, nitroglycerin, sodium nitroprusside, SIN-1, SNAP, FK 409, FR 144420, cromakalim, nicorandil, minoxidil, P 1075, KRN 2391, pinacidil, amitriptyline, imipramine, trazodone, desiprmaine, ketanserin" as the suitable examples of "serotonin2 receptor subtype antagonist, tachykinin receptor antagonist, nitric oxide donors, ATP-sensitive potassium channel openers, calcium channel antagonists and endothelin receptor antagonists", the specification fails to provide how to make/screen "spasm inhibitory agent", "direct thrombin inhibitors and receptor antagonists, purinoceptor receptor antagonists, thromboxane inhibitors and receptor antagonists, platelet membrane glycoprotine receptor antagonists, inhibitors of cell adhesion molecules, selectin inhibitors, integrin inhibitors, anti-chemotactic agents, interleukin receptor antagonists, protein kinase C inhibitors and protein tyrosine kinase inhibitors, modulators of intraceullar protein tyrosine phosphatase, inhibitiors of src homology2 domains" or "serotonin2 receptor subtype antagonists, tachykinin receptor antagonist, nitric oxide donors, ATP-sensitive potassium channel openers, calcium channel antagonists and endothelin receptor antagonists" without undue amount of experimentation and make further modification to arrive the claimed combination. The instant claims read on any

compounds having the claimed characteristics, necessitating an exhaustive search for the embodiments suitable to practice the claimed invention. Applicants fail to provide information sufficient to practice the claimed invention, absent undue experimentation.

As discussed above, biological compounds often react unpredictably under different circumstances. For example, contrary to the instant invention, dilitiazem (calcium channel antagonist) and heparin (thrombin inhibitor) are known to be ineffective in the treatment of restenosis ("Inefficacy of dilitiazem in restenosis prevention after coronary angioplasty", Tanajura et al., Arq Bras Cardiol., abstract, 1994, 62(2):99-102; "Does Heparin Cofactor II modulate Athersclerosis and Restenosis", D. Tollefsen, Circulation 2004, 109;2682-2684). Thus, to practice the instant invention to the claimed scope, applicant would have to make or screen numerous possible compounds that are known to have the desired characteristic of the instant invention (may be over >1000 or >10,000) and then undergo undue trials and errors to find the desired combination. In other words, the instant invention necessitates for the skilled artisan to undergo an exhaustive search for the embodiments suitable to practice the claimed invention.

The amount of guidance or direction needed to enable the invention is inversely related to the degree of predictability in the art. In re Fisher, 839, 166 USPQ 24. Thus, although a single embodiment may provide broad enablement in cases involving predictable factors, such as mechanical or electrical elements, in cases involving unpredictable factors, such as most chemical reactions and physiological activity, more teaching or guidance is required. In re Fishcher, 427 F.2d 839, 166 USPQ 24; Ex Parte Hitzeman, 9 USPQ 2d 1823. For example, the Federal Circuit determined that, given the unpredictability of the physiological activity of RNA viruses, a specification requires more than a general description and a single embodiment to

provide an enabling disclosure for a method of protecting an organism against RNA viruses. In re Wright, 999 F.2d 1562-63, 27 USPQ2d 1575.

As discussed above, considering above factors, especially the "sufficient working examples", "the level of skill in the art", "the relative skill and the unpredictability in the pharmaceutical art", "breadth of the claims" and "the chemical nature of the invention", one having ordinary skill in the art would have to undergo an undue amount of experimentation to make the claimed compositions.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 40-47, 51-58 and 62-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 40-47, 51-58 and 62-64 provide for the use of solution comprising restenosis inhibitors in combination with spasm inhibitory agents, but, since the claim does not set forth any steps involved in the method/process, it is unclear what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

For the examination purpose, "A solution for use..." is interpreted as "a solution for preemptively inhibiting restenosis...".

Regarding independent claim 40 or 51, it is not clear what is meant by "preemptive inhibition" and "selectively for preemptively inhibiting". The specification does not define the term and leaves the reader in doubt as to the meaning of the invention to which they refer, thereby rendering the definition of the subject-matter of said claims unclear.

The term "selectively" in the claim 40 is relative term. The specification does not define the term "selectively for preemptively inhibiting", and the specification does not provide a standard for ascertaining the requisite degree of "inhibition", and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Regarding independent claim 40 or 51, it is not clear what is meant by "differing molecular targets" and "the concentration of each agent within the solution being the concentration of that agent which is desired to be delivered locally to an operative vascular site in order to achieve a level of inhibitory effect at the operative vascular site and that is less than a concentration which would be required to provide the same level of inhibitory effect at the operative vascular site if the solution was applied systemically". The specification does not define the term and leaves the reader in doubt as to the meaning of the invention to which they refer, thereby rendering the definition of the subject-matter of said claims unclear.

Regarding claims 40, 62 and 63, the phrase "including" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. See MPEP § 2173.05(c). Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949). In the present instance, claims 40, 62 and 63 recite the broad recitation "inhibitors of cell adhesion molecules", and the claim also recites "including selectin inhibitors and integrin inhibitors" which is the narrower statement of the range/limitation. Similarly, claim 52 recite the broad recitation "intracellular signaling inhibitors", and the claim also recites "including protein kinase C inhibitors and protein tyrosine kinase inhibitors" which is the narrower statement of the range/limitation.

8. Claims 40-47, 51-58 and 62-64 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd.* v. *Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

9. Claims 40-42, 44-47, 51-58 and 62-64 rejected under 35 U.S.C. 103(a) as being unpatentable over Krongrad (US 5786362) in view of Honn et al. (US 4906646).

[redacted]

Krongrad teaches the use of protein kinase C inhibitor such as calphostin C for the treatment of hormone independent cancer including breast, prostate, uterine, ovarian and colon cancer (abstract; column 8, line 31 and lines 39-45).

Honn et al. (US 4906646) teaches the use of calcium channel blocker such as nifedipine for the treatment of cancer including colon, ovarian, testicular and bladder cancer (column 8, lines 24-26; column 13, lines 5-6), wherein said calcium channel blocker is administered between about 0.01 and 20 mg per kg of body weight of the mammal (claims 1-3); and wherein the calcium channel blocker is formulated into aqueous solution where said formulation is prepared by mixing water, physiological saline or Ringer's solution (column 8. lines 14-21).

The teaching of Krongrad differs from (i) the claimed invention in the single composition and (ii) the specific dosage concentration, namely "no greater than 100,000 nanomolar" or "no greater than 10,0000 nanomolar"(claims 41-42, 52-53) or "1.0 to 10,000 namomolar for calcium channel antagonist" (claims 47 and 58); and the incorporation of irrigation fluid (claims 43 and 54); and the liquid dosage formulation containing biocompatible solvent, a suspension, a polymeriazble or non-polymerizable gel, paste and a salve (claims 44 and 55).

Above references in combination make clear that protein kinase C inhibitor and nifedipine have been individually used for the treatment of colon cancer or ovarian cancer. It is obvious to combine two compositions each of which is taught by prior art to be useful for same purpose; idea of combining them flows logically from their having been individually taught in the prior art. The combination of active ingredient with the same character is merely the additive effect of each individual component. *See In re Kerkhoven, 205 USPQ 1069 (CCPA 1980).*

With respect to the dosage concentration of each active ingredients, generally, differences in concentration will not support the patentability of subject matter encompassed by the prior art unless there is evidence indicating such concentration is critical "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ233, 235 (CCPA 1955). See also In re Hoeschele, 406 F.2d 1403, 160 USPQ 809 (CCPA 1969).

With respect to the incorporation of irrigation fluid (the specification discloses "normal saline or lactated Ringer's as the suitable example of irrigation fluid, see page 2, lines 9-10) or liquid carrier such as "a biocompatible solvent, a suspension, a polymerizable or non-polymerizable gel, a paste and a salve", those of ordinary skill in the art would have been readily determined the appropriate dosage forms containing the claimed secondary ingredients (e.g., physiological saline or lactated Ringer's solution) or liquid carrier (e.g., biocompatible solvent or suspension) for treatment involving each of the above mentioned formulations is routinely made by those of ordinary skill in the art and is within the ability of tasks routinely performed by them without undue experimentation, especially in light of the dosage forms or delivery systems disclosed the cited reference(s).

Conclusion

10. No Claim is allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Kwon whose telephone number is (571) 272-0581. The examiner can normally be reached Tuesday through Friday from 9:00 am to 7:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ardin Marschel, can be reached on (571) 272-0718. The fax number for this Group is (571) 273-8300.

Any inquiry of a general nature of relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications may be obtained from Private PAIR only. For more information about PAIR system, see http://pair-direct.uspto.gov Should you have any questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free).

Brian Kwon
Patent Examiner
AU 1614